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* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JUL 12 BEILSTEIN enhanced with new display and select options,
resulting in a closer connection to BABS
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fields
NEWS 5 AUG 02 CAPlus and CA patent records enhanced with European and Japan
Patent Office Classifications
NEWS 6 AUG 02 The Analysis Edition of STN Express with Discover!
(Version 7.01 for Windows) now available
NEWS 7 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 8 AUG 27 BIOTECHABS/BIOTECHDS: Two new display fields added for legal
status data from INPADOC
NEWS 9 SEP 01 INPADOC: New family current-awareness alert (SDI) available
NEWS 10 SEP 01 New pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover!
NEWS 11 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 12 SEP 27 STANDARDS will no longer be available on STN
NEWS 13 SEP 27 SWETSCAN will no longer be available on STN
NEWS 14 OCT 28 KOREAPAT now available on STN
NEWS 15 NOV 18 Current-awareness alerts, saved answer sets, and current
search transcripts to be affected by CERAB, COMPUAB, ELCOM,
and SOLIDSTATE reloads

NEWS EXPRESS OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004

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NEWS INTER General Internet Information
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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 10:13:21 ON 22 NOV 2004

=> file agricola caplus biosis
COST IN U.S. DOLLARS

SINCE FILE TOTAL

L1	ANSWER 1 OF 2	CAPLUS	COPYRIGHT 2004	ACS on STN	
	PATENT NO:	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002029070	A2	20020411	WO 2001-US31285	20011005
	WO 2002029070	C2	20030220		
	WO 2002029070	A3	20030814		
	W:	AE, AG, AL, AM, AT, AU, AZ,	BA, BB, BG, BR, BY, BZ, CA, CH, CN,		
		CO, CR, CU, CZ, DE, DK, DM, DZ,	EC, EE, ES, FI, GB, GD, GE, GH,		
		GM, HR, HU, ID, IL, IN, IS, JP,	KE, KG, KP, KR, KZ, LC, LK, LR,		
		LS, LT, LU, LV, MA, MD, MG, MK,	MN, MW, MX, MZ, NO, NZ, PH, PL,		
		PT, RO, RU, SD, SE, SG, SI, SK,	SL, TJ, TM, TR, TT, TZ, UA, UG,		
		US, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL,	SZ, TZ, UG, ZW, AM, AZ, BY, KG,		
		KZ, MD, RU, TJ, TM, AT, BE, CH,	CY, DE, DK, ES, FI, FR, GB, GR,		
		IE, IT, LU, MC, NL, PT, SE, TR,	BF, BJ, CF, CG, CI, CM, GA, GN,		
		GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2001096657	A5	20020415	AU 2001-96657	20011005

=> d 2 ab

L1 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

AB The chi square (χ^2) values, which represent the degree of the agreement of the calculated cross sections with their exptl. values, are calculated for 3 kinds of optical potential, which are resp. the phenomenol. optimal optical potential (OOP) for a specific element, the global phenomenol. optical potential given by Becchetti and Grenlees (BGP) for a large amount of target nuclei and the microscopic optical potential based on Skyrme force (MOP). Some 14 natural elements (each containing 1-4 isotopes) are calculated with 12-20 n incident energies, which are in the 0.1-24 MeV energy range for each element, resp. The calculated average total χ^2 values are .hivin. χ OOP2 = 0.496, .hivin. χ MOP2 = 1.150, and .hivin. χ BGP2 = 1.355, from which one obtains the ratio of average deviation of calculated nuclear data from their exptl. values .hivin. Δ MOP/.hivin. Δ OOP = 1.52 and .hivin. Δ BGP/.hivin. Δ OOP = 1.65. The microscopic optical potential based on Skyrme force, which has AN anal. formalism without any free parameters, is very useful in nuclear data calcns. and evaluations.

=> s pta-3956 or pta-4030 or pta-3965

L2 0 PTA-3956 OR PTA-4030 OR PTA-3965

=> s ((chandler v?) or (chandler, v?))/auy

'AUY' IS NOT A VALID FIELD CODE

'AUY' IS NOT A VALID FIELD CODE

'AUY' IS NOT A VALID FIELD CODE

L3 0 ((CHANDLER V?) OR (CHANDLER, V?))/AUY

=> s ((chandler v?) or (chandler, v?))/au

L4 238 ((CHANDLER V?) OR (CHANDLER, V?))/AU

=> s l4 and paramut?

L5 44 L4 AND PARAMUT?

=> dup rem l5

PROCESSING COMPLETED FOR L5

L6 23 DUP REM L5 (21 DUPLICATES REMOVED)

=> d 1-10 ti

L6 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

TI Chromatin conversations: mechanisms and implications of
paramutation

L6 ANSWER 2 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
STN

TI **Paramutation**, an allele interaction that causes heritable
changes in transcription involves long distance interactions and chromatin
structural changes.

L6 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

TI Genes affecting transgene silencing in maize and the development of plant
lines with low levels of transgene silencing for breeding

L6 ANSWER 4 OF 23 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 2

TI A mutation that prevents **paramutation** in maize also reverses

Mutator transposon methylation and silencing.

- L6 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
TI Differential chromatin structure within a tandem array 100 kb upstream of the maize b1 locus is associated with **paramutation**
- L6 ANSWER 6 OF 23 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4
TI The regulatory regions required for B' **paramutation** and expression are located far upstream of the maize b1 transcribed sequences.
- L6 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Long-distance cis and trans interactions mediate **paramutation**
- L6 ANSWER 8 OF 23 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 5
TI Genetic factors required to maintain repression of a **paramutagenic** maize pl1 allele.
- L6 ANSWER 9 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Gene activation and gene silencing.
- L6 ANSWER 10 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Epigenetic control of gene expression in plants.

=> d ab

- L6 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AB A review. **Paramutation** is a widespread epigenetic phenomenon that was first described in pea and then extensively studied in maize, whereby combining two specific alleles results in a heritable change in the expression of one of the alleles. Far from being restricted to endogenous plant genes, **paramutation**-like interactions have been described in several kingdoms, in which they can occur between homologous transgenes or between transgenes and homologous endogenous genes at allelic or non-allelic positions. In this review, potential mechanisms underlying **paramutation** was discussed, and compared **paramutation** to several other trans-sensing phenomena, and speculate on the potential roles and evolutionary implications of these intriguing homol.-sensing mechanisms.

=> d so

- L6 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
SO Nature Reviews Genetics (2004), 5(7), 532-544
CODEN: NRGAAH; ISSN: 1471-0056

=> d 2 ab

- L6 ANSWER 2 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

=> d 2 so

L6 ANSWER 2 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
STN
SO Anonymous. (2003) pp. Abst 4. Plant Genetics 2003: Mechanisms of Genetic
Variation. print.
Publisher: American Society of Plant Biologists, 15501 Monona Drive,
Rockville, MD, 20855-2768, USA.
Meeting Info.: Plant Genetics Meeting on Mechanisms of Genetic Variation.
Snowbird, UT, USA. October 22-26, 2003. American Society of Plant
Biologists.

=> d 3 ab

L6 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
AB Transgenic silencing is a little understood process by which genes
introduced into plants are turned off or silenced. Genetic screens were
designed to identify corn mutants with reduced gene silencing activity.
Such mutant corn lines include Mop1-1; Mop1-2EMS; Mop2-1, mop3-1; CC2343,
rmr1-1; rmr1-2; rmr2-1; rmr6-1; rmr7-1; rmr7-2; rmr8-1; rmr9-1; Mop1-4;
Mop1-5; and rmr11-1 and seeds derived therefrom, the plants are useful for
corn breeding programs to produce inbred and hybrid seed with reduced gene
silencing activity.

=> d 3 so

L6 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
SO PCT Int. Appl., 173 pp.
CODEN: PIXXD2

=> d 3 pi

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029070	A2	20020411	WO 2001-US31285	20011005
WO 2002029070	C2	20030220		
WO 2002029070	A3	20030814		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001096657	A5	20020415	AU 2001-96657	20011005
US 2002157133	A1	20021024	US 2001-972805	20011005

=> d 11-20 ti

L6 ANSWER 11 OF 23 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 6

TI mediator of **paramutation1** Is required for establishment and
maintenance of **paramutation** at multiple maize loci.

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 (2004) on STN DUPLICATE 7

TI **Paramutation** alters regulatory control of the maize pl locus.

L6 ANSWER 13 OF 23 AGRICOLA Compiled and distributed by the National
 Agricultural Library of the Department of Agriculture of the United States
 of America. It contains copyrighted materials. All rights reserved.
 (2004) on STN DUPLICATE 8

TI **Paramutation** in maize.

L6 ANSWER 14 OF 23 AGRICOLA Compiled and distributed by the National
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 (2004) on STN DUPLICATE 9

TI **Paramutation** and related allelic interactions.

L6 ANSWER 15 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
 STN

TI B And pl **paramutation** in maize: Heritable transcription states
 programmed during development.

L6 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

TI b and pl **paramutation** in maize: heritable transcription states
 programmed during development

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 (2004) on STN DUPLICATE 10

TI Sequences required for **paramutation** of the maize b gene map to a
 region containing the promoter and upstream sequences.

L6 ANSWER 18 OF 23 AGRICOLA Compiled and distributed by the National
 Agricultural Library of the Department of Agriculture of the United States
 of America. It contains copyrighted materials. All rights reserved.
 (2004) on STN DUPLICATE 11

TI Allelic interactions heritably alter the activity of a metastable maize pl
 allele.

L6 ANSWER 19 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
 STN

TI **Paramutation**: An allelic interaction that causes heritable
 changes in transcription.

L6 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

TI **Paramutation** in maize and related allelic interactions

=> d 21-23 ti

L6 ANSWER 21 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
 STN

TI **Paramutation**: An allelic interaction that causes heritable
 changes in transcription.

L6 ANSWER 22 OF 23 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
 STN

TI **Paramutation** in maize: Allelic interactions associated with
 heritable changes in transcription.

L6 ANSWER 23 OF 23 AGRICOLA Compiled and distributed by the National
 Agricultural Library of the Department of Agriculture of the United States
 of America. It contains copyrighted materials. All rights reserved.
 (2004) on STN DUPLICATE 12

TI **Paramutation**, an allelic interaction, is associated with a stable and heritable reduction of transcription of the maize b regulatory gene.

```
=> s ((hollick, j?) or (hollick j?))/ay
'AY' IS NOT A VALID FIELD CODE
NUMERIC VALUE NOT VALID 'HOLLICK, J?'
NUMERIC VALUE NOT VALID 'HOLLICK J?'
'AY' IS NOT A VALID FIELD CODE
L7      0 ((HOLLICK, J?) OR (HOLLICK J?))/AY
```

```
=> s ((hollick, j?) or (hollick j?))/au8
'AU8' IS NOT A VALID FIELD CODE
'AU8' IS NOT A VALID FIELD CODE
'AU8' IS NOT A VALID FIELD CODE
L8      0 ((HOLLICK, J?) OR (HOLLICK J?))/AU8
```

```
=> s ((hollick, j?) or (hollick j?))/au
L9      39 ((HOLLICK, J?) OR (HOLLICK J?))/AU
```

```
=> dup rem l9
PROCESSING COMPLETED FOR L9
L10     21 DUP REM L9 (18 DUPLICATES REMOVED)
```

```
=> d 1-10 ti
```

L10 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
TI 2,6-Disubstituted pyran-4-one and thiopyran-4-one inhibitors of DNA-Dependent protein kinase (DNA-PK)

L10 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes affecting transgene silencing in maize and the development of plant lines with low levels of transgene silencing for breeding

L10 ANSWER 3 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2

TI Genetic factors required to maintain repression of a paramutagenic maize pl1 allele.

L10 ANSWER 4 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3

TI mediator of paramutation1 Is required for establishment and maintenance of paramutation at multiple maize loci.

L10 ANSWER 5 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 4

TI Paramutation alters regulatory control of the maize pl locus.

L10 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

TI Combined solar collector and photovoltaic cells

L10 ANSWER 7 OF 21 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

TI Repellency of Deer Away Big Game Repellent(R) to eastern cottontail rabbits.

L10 ANSWER 8 OF 21 AGRICOLA Compiled and distributed by the National

Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 5

TI Epigenetic allelic states of a maize transcriptional regulatory locus exhibit overdominant gene action.

L10 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

TI Solar cogeneration panels

L10 ANSWER 10 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 6

TI Paramutation and related allelic interactions.

=> s l10 and paramut?

L11 9 L10 AND PARAMUT?

=> d 1-9 ti

L11 ANSWER 1 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

TI Genetic factors required to maintain repression of a **paramutagenic** maize **pl1** allele.

L11 ANSWER 2 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

TI mediator of **paramutation1** Is required for establishment and maintenance of **paramutation** at multiple maize loci.

L11 ANSWER 3 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

TI **Paramutation** alters regulatory control of the maize **pl** locus.

L11 ANSWER 4 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

TI **Paramutation** and related allelic interactions.

L11 ANSWER 5 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

TI Allelic interactions heritably alter the activity of a metastable maize **pl** allele.

L11 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

TI Genes affecting transgene silencing in maize and the development of plant lines with low levels of transgene silencing for breeding

L11 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

TI **b** and **pl paramutation** in maize: heritable transcription states programmed during development

L11 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

TI **B** And **pl paramutation** in maize: Heritable transcription states

programmed during development.

L11 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI **Paramutation:** An allelic interaction that causes heritable
changes in transcription.

=> d so

L11 ANSWER 1 OF 9 AGRICOLA Compiled and distributed by the National
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(2004) on STN
SO Genetics, Jan 2001. Vol. 157, No. 1. p. 369-378
Publisher: Bethesda, Md. : Genetics Society of America.
CODEN: GENTAE; ISSN: 0016-6731

=> d ab

L11 ANSWER 1 OF 9 AGRICOLA Compiled and distributed by the National
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(2004) on STN

=> d 2 ab

L11 ANSWER 2 OF 9 AGRICOLA Compiled and distributed by the National
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(2004) on STN

=> d 2 so

L11 ANSWER 2 OF 9 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2004) on STN
SO The Plant cell, Nov 2000. Vol. 12, No. 11. p. 2101-2118
Publisher: [Rockville, MD : American Society of Plant Physiologists,
c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> d 8 ab

L11 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

=> d 8 so

L11 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
SO Russo, V. E. A. [Editor]; Martienssen, R. A. [Editor]; Riggs, A. D.
[Editor]. Cold Spring Harbor Monogr. Ser., (1996) pp. 289-304. Cold Spring
Harbor Monograph Series; Epigenetic mechanisms of gene regulation.
Publisher: Cold Spring Harbor Laboratory Press, 10 Skyline Drive,
Plainview, New York 11803, USA. Series: Cold Spring Harbor Monograph
Series.
CODEN: CHMSDK. ISSN: 0270-1847. ISBN: 0-87969-490-4.

=> s ((dorweiler j?) or (dorweiler, j?))/au

L12 28 ((DORWEILER J?) OR (DORWEILER, J?))/AU

=> s l12 and paramut?

L13 19 L12 AND PARAMUT?

=> dup rem l13

PROCESSING COMPLETED FOR L13

L14 8 DUP REM L13 (11 DUPLICATES REMOVED)

=> d 1-8 ti

L14 ANSWER 1 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Differential gene expression in mediator of **paramutation** (mop)
mutants of maize.

L14 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes affecting transgene silencing in maize and the development of plant
lines with low levels of transgene silencing for breeding

L14 ANSWER 3 OF 8 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 1

TI A mutation that prevents **paramutation** in maize also reverses
Mutator transposon methylation and silencing.

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
TI Differential chromatin structure within a tandem array 100 kb upstream of
the maize b1 locus is associated with **paramutation**

L14 ANSWER 5 OF 8 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 3

TI The regulatory regions required for B' **paramutation** and
expression are located far upstream of the maize b1 transcribed sequences.

L14 ANSWER 6 OF 8 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 4

TI mediator of **paramutation**1 Is required for establishment and
maintenance of **paramutation** at multiple maize loci.

L14 ANSWER 7 OF 8 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 5

TI **Paramutation** in maize.

L14 ANSWER 8 OF 8 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 6

TI **Paramutation** and related allelic interactions.

=> d so

L14 ANSWER 1 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
SO Anonymous. (2003) pp. Abst 68. Plant Genetics 2003: Mechanisms of Genetic
Variation. print.
Publisher: American Society of Plant Biologists, 15501 Monona Drive,
Rockville, MD, 20855-2768, USA.

Meeting Info.: Plant Genetics Meeting on Mechanisms of Genetic Variation.
Snowbird, UT, USA. October 22-26, 2003. American Society of Plant
Biologists.

=> d 2 pi

L14 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
PATENT NO. KIND DATE APPLICATION NO. DATE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029070	A2	20020411	WO 2001-US31285	20011005
WO 2002029070	C2	20030220		
WO 2002029070	A3	20030814		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001096657	A5	20020415	AU 2001-96657	20011005
US 2002157133	A1	20021024	US 2001-972805	20011005

=> d 4 so

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
SO Genes & Development (2002), 16(15), 1906-1918
CODEN: GEDEEP; ISSN: 0890-9369

=> d 4 ab

L14 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
AB Recombination mapping defined a 6-kb region, 100 kb upstream of the transcription start site, that is required for B-I enhancer activity and **paramutation**-a stable, heritable change in transcription caused by allele interactions in maize (*Zea mays*). In this region, B-I and B' (the only b1 alleles that participate in **paramutation**) have seven tandem repeats of an 853-bp sequence otherwise unique in the genome; other alleles have one. Examination of recombinant alleles with different nos. of tandem repeats indicates that the repeats are required for both **paramutation** and enhancer function. The 6-kb region is identical in B-I and B', showing that epigenetic mechanisms mediate the stable silencing associated with **paramutation**. This is the first endogenous gene for which sequences required for **paramutation** have been defined and examined for methylation and chromatin structure. The tandem repeat sequences are more methylated in B-I (high expressing) relative to B' (low expressing), opposite of the typical correlation. Furthermore, the change in repeat methylation follows establishment of the B' epigenetic state. B-I has a more open chromatin structure in the repeats relative to B'. The nuclease hypersensitivity differences developmentally precede transcription, suggesting that the repeat chromatin structure could be the heritable imprint distinguishing the two transcription states.

=> s ((lisch d?) or (lisch, d?))/au
L15 48 ((LISCH D?) OR (LISCH, D?))/AU
=> s l15 and paramut?

L16 5 L15 AND PARAMUT?

=> dup rem l16

PROCESSING COMPLETED FOR L16

L17 3 DUP REM L16 (2 DUPLICATES REMOVED)

=> d 1-3 ti

L17 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

TI Genes affecting transgene silencing in maize and the development of plant lines with low levels of transgene silencing for breeding

L17 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

TI A mutation that prevents **paramutation** in maize also reverses Mutator transposon methylation and silencing

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

TI Mutator transposons

=> s ((kubo, k?) or (kubo k?))/au

L18 4084 ((KUBO, K?) OR (KUBO K?))/AU

=> s l18 and paramut?

L19 12 L18 AND PARAMUT?

=> dup rem l19

PROCESSING COMPLETED FOR L19

L20 8 DUP REM L19 (4 DUPLICATES REMOVED)

=> d 1-8 ti

L20 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Genes affecting transgene silencing in maize and the development of plant lines with low levels of transgene silencing for breeding

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TI mediator of **paramutation**1 Is required for establishment and maintenance of **paramutation** at multiple maize loci.

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TI B And pl **paramutation** in maize: Heritable transcription states programmed during development.

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TI b and pl **paramutation** in maize: heritable transcription states programmed during development

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TI Sequences required for **paramutation** of the maize b gene map to a region containing the promoter and upstream sequences.

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TI **Paramutation**: An allelic interaction that causes heritable changes in transcription.

L20 ANSWER 7 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

TI **Paramutation**: An allelic interaction that causes heritable

changes in transcription.

L20 ANSWER 8 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI **Paramutation** in maize: Allelic interactions associated with
heritable changes in transcription.

=> s ((carey, c?) or (carey c?))/ay
'AY' IS NOT A VALID FIELD CODE
NUMERIC VALUE NOT VALID 'CAREY, C?'
NUMERIC VALUE NOT VALID 'CAREY C?'
'AY' IS NOT A VALID FIELD CODE
L21 0 ((CAREY, C?) OR (CAREY C?))/AY

=> s ((carey, c?) or (carey c?))/au
L22 452 ((CAREY, C?) OR (CAREY C?))/AU

=> s l22 and paramut?
L23 8 L22 AND PARAMUT?

=> dup rem l23
PROCESSING COMPLETED FOR L23
L24 4 DUP REM L23 (4 DUPLICATES REMOVED)

=> d 1-4 tiu
'TIU' IS NOT A VALID FORMAT
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in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ti

L24 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
TI Three regulators of the maize anthocyanin pathway

L24 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes affecting transgene silencing in maize and the development of plant
lines with low levels of transgene silencing for breeding

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TI A mutation that prevents **paramutation** in maize also reverses
Mutator transposon methylation and silencing.

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TI mediator of **paramutation**1 Is required for establishment and
maintenance of **paramutation** at multiple maize loci.

=> d so

L24 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
SO (2002) 219 pp. Avail.: UMI, Order No. DA3061938
From: Diss. Abstr. Int., B 2003, 63(8), 3584

=> s paramut? and silenc?
L25 70 PARAMUT? AND SILENC?

=> s l25 and transgenic

L26 22 L25 AND TRANSGENIC

=> dup rem l26

PROCESSING COMPLETED FOR L26

L27 12 DUP REM L26 (10 DUPLICATES REMOVED)

=> d 1-12 ti

L27 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

TI Genes affecting transgene **silencing** in maize and the development of plant lines with low levels of transgene **silencing** for breeding

L27 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

TI RNA-directed transcriptional gene **silencing** in plants can be inherited independently of the RNA trigger and requires Met1 for maintenance

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TI Transgene-induced **silencing** identifies sequences involved in the establishment of **paramutation** of the maize pl gene.

L27 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

TI Homology-dependent gene **silencing** in **transgenic** plants: Links to cellular defense responses and genome evolution

L27 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

TI Internuclear gene **silencing** in *Phytophthora infestans*

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TI Molecular and cytogenetic characterization of a transgene locus that induces **silencing** and methylation of homologous promoters in trans.

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TI Homology-based control of gene expression patterns in **transgenic** petunia flowers.

L27 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

TI Epigenetic control of transcription. Epigenetic **silencing** of plant transgenes as a consequence of diverse cellular defense responses

L27 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

TI **Silencing** of waxy genes in rice containing Wx transgenes

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TI **Paramutation** and transgene **silencing**: a common response to invasive DNA?

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TI Gene **silencing** in higher plants and related phenomena in other eukaryotes.

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TI Susceptibility of transgene loci to homology-dependent gene **silencing**.

=> d 2 ab

L27 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

AB The association between DNA methylation and gene **silencing** has long been recognized; however, signals that initiate de novo methylation are largely unknown. In plants, recognition of RNAs that are inducers of posttranscriptional gene **silencing** (PTGS) can result in sequence-specific DNA methylation, and the aim of this work was to investigate whether heritable epigenetic changes can occur by this mechanism and if the Met1 methyltransferase is required. RNA-directed DNA methylation (RdDM) was initiated in 35S-GFP **transgenic** plants following infection with plant RNA viruses modified to carry portions of either the 35S promoter or the GFP coding region. Targeting of the promoter sequence resulted in both methylation and transcriptional gene **silencing** (TGS) that was inherited independently of the RNA trigger. Targeting the coding region also resulted in methylation; however, this was not inherited. Expression of Met1 was suppressed in order to investigate its role in initiation and maintenance of RdDM. Initiation of RdDM was found to be Met1-independent, whereas maintenance of methylation and TGS in the subsequent generations in the absence of the RNA trigger was Met1-dependent. Maintenance of methylation associated with systemic PTGS was also found to be Met1-independent. Thus, RNA-triggered events can lead to heritable changes in gene expression, and it is possible that initiation of other epigenetic phenomena such as **trans-silencing** and **paramutation** may have an RNA component.

=> d 2 so

L27 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

SO Current Biology (2001), 11(10), 747-757
CODEN: CUBLE2; ISSN: 0960-9822

=> d 2 so

L27 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

SO Current Biology (2001), 11(10), 747-757
CODEN: CUBLE2; ISSN: 0960-9822

=> d 3 so

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(2004) on STN DUPLICATE 2

SO The Plant cell, Feb 2001. Vol. 13, No. 2. p. 319-335
Publisher: [Rockville, MD : American Society of Plant Physiologists, c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> d 3 ab

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AB A transgene carrying a distal enhancer element of the maize P1-rr promoter caused **silencing** of an endogenous P1-rr allele in the progeny of **transgenic** maize plants. Expression of both the transgene and the endogenous P1-rr allele was reduced in the affected plants. The **silenced** phenotype was observed in the progeny of seven of eight crosses involving three independent **transgenic** events tested (average frequency of 19%). This phenotype was associated with an induced epigenetic state of the P1-rr allele, termed P1-rr', which is characterized by increased methylation of the P1-rr flanking regions and decreased levels of P1-rr transcript. The P1-rr' epiallele is highly heritable in the absence of the inducing P1.2b::GUS transgene, and it can impose an equivalent state on a naive P1-rr allele in subsequent crosses (**paramutation**). In contrast, parallel experiments with two other P::GUS transgenes that contained the same basal P1-rr promoter fragment but different upstream sequences revealed no detectable **silencing** effect. Thus, transgenes carrying a specific enhancer fragment of the P1-rr gene promoter can trigger a **paramutant** state (P1-rr') of the endogenous P1-rr gene that is maintained in the absence of the inducing transgene. We discuss the potential role of the P1-rr distal enhancer element in the establishment and propagation of a **paramutation** system in maize.

=> d 10 sb

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=> d 10 so

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SO Trends in plant science, Nov 1996. Vol. 1, No. 11. p. 382-388
Publisher: Kidlington, Oxford : Elsevier Science, Ltd., c1996-
ISSN: 1360-1385